STUDY OF DETERMINANTS FOR THE ADOPTION OF DIGITAL MARKETING FOR STUDENT ENGAGEMENT BY THE COLLEGES OF UTTAR PRADESH: APPLICATION OF TECHNOLOGY ACCEPTANCE MODEL

Synopsis of the Research Proposal

Submitted for the Registration in the

Ph.D. Program in Management

by

Jatin Tandon
(Enrollment No. 25JPPHNDMS010**)**

Under Supervision of

Dr. Vidhu K. Mathur
Assistant Professor

(ICFAI Business School)

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Dr. Vidhu K. Mathur
Assistant Professor

Jatin Tandon
Research Scholar

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Supervisor

(ICFAI Business School)

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Abstract

This proposed research study is aimed at understanding adoption of digital marketing for the student engagement in colleges of Uttar Pradesh by identifying the determinants of behavioral intention using the Technology Acceptance Model (TAM). With the rapid digitalization of higher education and increasing competition among institutions, digital platforms such as social media, websites, and online campaigns have become critical tools for attracting and engaging prospective students. However, limited region-specific research exists on how these strategies influence engagement and adoption, particularly in the context of Uttar Pradesh. The bibliometric analysis indicates that there a significant amount of work done in USA and China. However, in the Indian context very little evidence of research done on this topic. Hence, this study addresses the gap by extending TAM through the inclusion of perceived value and trust.

The study hypothesizes that perceived usefulness, perceived ease of use, perceived value, attitude, and trust significantly influence behavioral intention to adopt digital marketing for student engagement. The primary objectives include analyzing the current digital marketing landscape, identifying key factors for the adoption of digital marketing technologies for student engagement and enrolment.

A mixed-method research design is adopted, incorporating both exploratory and descriptive approaches. Primary data will be collected through a structured questionnaire administered to institutional stakeholders, including principals, management, and heads of departments. A sample size of 369 respondents will be selected using non-probability sampling techniques. Data analysis will be conducted using statistical tools such as factor analysis and Structural Equation Modeling (SEM) to test the proposed relationships.

The study is expected to provide actionable insights for educational institutions and policymakers to develop effective digital engagement strategies while contributing to the theoretical advancement of TAM in the context of higher education marketing.

1. Introduction

People use the term "digital marketing" in different ways because there are so many ways to understand it. Other names for it are Internet marketing, online marketing, and e-marketing. Even though these phrases are related, they are different. Internet marketing is the use of the internet to sell and promote goods and services. Hanson and Kalyanam (2007). E-marketing is also called electronic marketing. Digital technology and a working internet connection can help you market and advertise your goods and services (Hoge, 1993).

Digital marketing includes using a variety of IT technologies and strategies to promote and advertise goods and services, as well as the digital marketing of different goods. It is a new and useful way to market products. It is a very different process from traditional marketing. Digital marketing means using electronic media and different online activities to build and keep a relationship with clients. It includes a number of ways to connect with people online and get leads and sales for our business. Digital marketing is a process that changes all the time, unlike traditional marketing (Wymbs, 2011). Digital marketing works well because it can measure facts, figures, and data. It reduces the number of expedited door-to-door actions. Also, it's a cheap and practical way to talk to other people without bothering them.

Digital marketing helps the businesses to promote their products, services or brands through electronic channels. Shirisha (2018) identifies alternative terms for digital marketing as "online marketing," "internet marketing," and "web marketing." As defined by The Chartered Institute of Marketing, the digital marketing is a process of management for identifying, executing and meeting the demands of customers satisfactorily. Digital marketing, as defined by Smarter Insights, is the attainment of marketing objectives by digital technologies. The domain of digital marketing is expanding in breadth as the world becomes increasingly digital. This is due to the perception that it is a straightforward, pragmatic, and effective method of learning. Professionals adept in addressing issues related to electronic media are increasingly sought for.

Currently, mobile phone usage is ubiquitous, particularly with smartphones. The digital marketing sector and its scope are expanding daily. The key contention is that digital marketing, through the internet and electronic media, allows for omnipresence at any time and location globally, unlike traditional marketing. Digital marketing fundamentally represents an innovative approach to understanding consumer behaviour and strategy.

Digital Marketing Tools: Digital marketing comprises of various tools and techniques which will allow to explore issues in detail are Search Engine Marketing (SEM); Search Engine Optimization (SEO); Social Media Marketing (SMM); Marketing thru Email and Affiliate Marketing.

Digital Marketing Channels: Digital marketing channels are the tools through which the various activities of digital marketing are carried out by businesses. Website, emails, blogs, social media networking websites, smart phones and digital TVs are the sources of digital marketing channels being used by businesses as shown in figure 1.

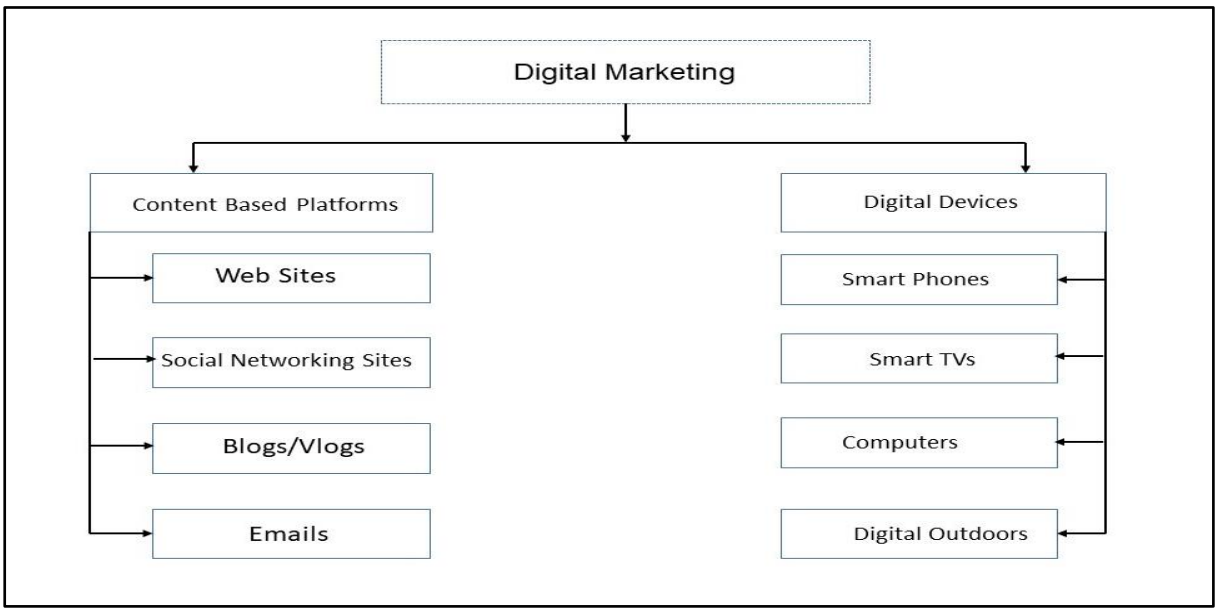


Figure 1. Digital Marketing Tools

Source: (*Wertime, K. and Fenwick, I, 2011). DigiMarketing: The essential guide to new media and digital marketing. Hoboken, NJ: John Wiley & Sons.*

Digital Marketing in Educational Institutions: The 2019 pandemic has compelled educational institutions to transition from traditional marketing to digital marketing. Digital marketing enables educational institutions to target potential students, facilitate enrolment, engage current students, provide placement opportunities, build curricula, communicate with students, offer career counselling, cultivate alumni connections, and develop professional networks for students. This study analyses prior research to investigate the patterns and concepts of digital marketing, its digital media platforms, and the techniques employed by educational institutions worldwide. This study will provide chances for researchers and practitioners to connect digital marketing with educational institutions.

Satya (2022) asserts that institutions may enhance student enrolment by utilising effective digital marketing strategies. Before institutions invest in digital marketing, it's important to understand its potential benefits. Future research could explore how digital marketing strategies affect colleges and universities. Jha (2023) suggested that digitization has fundamentally changed education, as many people now use the internet, which has transformed teaching methods. Therefore, schools and universities need to use the internet and other media to reach more students. Digital marketing is now widely seen as the main way for educational institutions to connect with potential students. These elements are gaining prominence within the realm of international education, primarily to enhance operational effectiveness. Consequently, it is highly recommended that educational institutions embrace and incorporate these approaches into their organizational frameworks. The effectiveness of online methods in facilitating student enrollment has been substantiated, thus positioning digital marketing as a crucial tool for achieving success in competitive environments.

2. Literature Review

Systematic Literature Review (SLR) was carried out to extract and review of the publications pertaining only the adoption of Digital Marketing by the Colleges for student engagement. I then looked at all papers in the Web of Science (WOS), Google Scholar and Scopus databases. Scopus and Web of Science are well-known databases. Few articles relevant to the topic of research are presented in table 2.

Table 2. Review of Literature

S. No.	Title	Findings & Suggestions	Country	Index
1	PC Lai (2017). THE LITERATURE REVIEW OF TECHNOLOGY ADOPTION MODELS AND THEORIES FOR THE NOVELTY TECHNOLOGY. Journal of Information Systems and Technology Management Vol. 14, No. 1, Jan/Apr., 2017 pp. 21-38	This paper has contributed to the literature extensively reviewing the concepts, development of application of technology adoption models and also the theories on the basis of the literature available. Various theories viz., Rogers (1995) Theory of Diffusion of Innovations (DIT),) (Fishbein and Ajzen, 1975) the Theory of Reasonable Action (TRA), (Ajzen, 1985, 1991) Theory of Planned Behavior (TPB), (Ajzen, 1985, 1991)Decomposed Theory of Planned Behaviour, (Taylor and Todd, 1995), the Technology Acceptance Model (TAM) (Davis, Bogozzi and Warshaw, 1989, Venkatesh and Davis (2000) Technology Acceptance Model 2 (TAM2) and) Venkatesh and Bala (2008) Technology Acceptance Model 3 (TAM3)	Malaysia	Scopus
2	Vivakaran M.V.; Maraimalai N. (2018). The feasibility and acceptance of social media interventions in higher education classrooms of developing nations with special reference to india. Contemporary Educational Technology, Vol. 9, NO.3, pages 284-296.	When computers were introduced into the academic domain, it was expected that the entire education system will be revolutionized across the globe. Similar expectations are forecasted in the social media context. The research conducted emphasizes that social media enhances the students learning in higher education environment. It is important to identify the readiness and efficiency of the people to take it to next level implementing the technologies in classrooms. The study was aimed at identifying the feasibility of social media aids in the classrooms. The study was conducted in Tamil Nadu.	India	Scopus
3	Kusumawati, Andriani. (2019). Impact of Digital Marketing on Student Decision-Making Process of Higher Education Institution: A Case of Indonesia. Journal of e-Learning and Higher Education, Vol. 2019, ISSN 2277-8616, pp. 3326-3329	This paper was aimed at understanding the student's perception and investigated the impact of digital marketing on student's decision making. The results revealed that students use social medial tools for researching on the universities.	Indonesia	Scopus
4	María del Rocío Bonilla; Eva Pereaa, José Luis del Olmo and August Corrons (2020). Insights into user engagement on social media. Case study of a higher education institution. Journal of Marketing for Higher Education 2020, VOL. 30, no. 1, pp.145–160.	Assessed Instagram as a digital communication medium between higher educational institutions and their users or stakeholders to enhance participation. The outcomes of Instagram post formats, content, and strategies for 'Comments and Likes' included disseminating information about organisations, competitions, fostering an interactive communication channel, and offering opportunities for feedback	Turkey	Scopus

5	Karen Sutherland, Uwe Terton, Cindy Davis, Christina Driver, and Irene Visser (2020). Academic Perspectives and Approaches to Social Media Use in Higher Education: A Pilot Study. International Journal of Teaching and Learning in Higher Education, Vol. 32. No.1. Pp. 1-12.	This paper investigated the social media application in the pedagogy in the academics. The survey was conducted on 53 academicians in the Australian University indicated that majority of them have used social media for student engagement through sharing information. The results also revealed that there were significant concerns about the privacy and time constraints in using social media	Australia	Scopus
6	Kılıç, I. & Kılıç, A. (2020). The effect of virtual campus tours and webinars on the university choice of prospective students: a case of Turkey. Journal of Education and Training Studies, 8(11), 107-114.	The research was conducted to study the correlation between the webinars the university conducts and the enrolmnent in the Turkish universities. They found a favaourable correlation indicating that webinars will help for an effective mechanism to attract students.	Turkey	WoS
7	Almukhtar, F., Mahmoodd, N. & Kareem, S. (2021). Search engine optimization: a review.Applied Computer Science, 17(1), 70-80.	The study revealed that awareness about social media was increasing and that individuals can search for visuals to enhance the scope of digital marketing.	Pakistan	WoS
8	Abbas, A., & Mehmood, K. (2021). Understanding Digital Marketing Adoption in India: Integrated by Technology Acceptance Model (TAM) and Theory of Planned Behaviour (TPB) Framework. Journal of Management Sciences, 8 (2), 70-87.	The research study suggested that perceived usefulness, attitude towards using digital marketing and behavioral control of the managers/owners of the startups have significantly impacted positively the behavioural intention to adopt digital marketing .This will helps the companies to enhance their business and give some insights into strategies. The study has contributed siginificantly towards theoretical aspects.	Pakistan	Google Scholar
9	Awotunde J.B.; Ogundokun R.O.; Ayo F.E.; Ajamu G.J.; Ogundokun O.E. (2021). UTAUT model: integrating social media for learning purposes among university students in Nigeria. SN Social Sciences, vol. 1, no.9	The study was conducted on the students in Nigerian University with the application of Unified Theory of Acceptance and Use of technology for the integration of social media. The test result showed that social and peer influence are pertinent elements that have an impact on social media (SM) recognition for education intentions. Consequently, the parent or institutional management can refuse students access to SM, if employed for erroneous intentions instead of acquiring purposes. Furthermore, the outcome showed that each of the five independent variables has a straight consequence on the education aim employed. Similarly, the findings equally showed that SM environments possess a clear, postulated impact on education use. This can be a reason that not all SMs can be conveniently utilized for the intention of learning. Furthermore, student experience could as well be influenced whenever SM was viewed exclusively for social undertakings which may include viewing movies, participating in games, and being linked to relatives as well as acquaintances. Also, the current study expands the original UTAUT by evaluating the influence of two additional variables (peer pressure and conditions of social media). Eventually, the study conceived a general questionnaire to assess factors that incorporate SM and use them for learning purposes.	Nigeria	Scopus

10	Alalwan N. (2022). Actual use of social media for engagement to enhance students' learning. Education and Information Technologies, vol. 27, NO.7, pages 9767-9789	Social Meida helps in connecting learners . The study adopted two models for investigating the factors for student involvement for improving their learning viz., technology acceptance model (TAM) and constructivism. The objective of the study was to create a model for use of social media for engagement. The survey was conducted on 410 students. The study emphasized that discriminant validity has become accepted as prerequisite for the factors. It also showed that using social media was beneficial. The R-square perceived usefulness was 0.611% and the student engagement was 0.56% and the use of social media was 0.82%.	Malaysia	Scopus
11	Muthmainnah; Obaid A.J.; Al.mahdawi R.S.; Khalaf H.A. (2022). Adoption Social Media-Movie Based Learning Project (SMMBL) To Engage Students' Online Environment. Educational Administration: Theory and Practice, vol. 28, no.1, pages 22-36	The study was conducted to investigate the impact of social medial incorporation into the English instructional material for online learning . Quantitative method was used and investigated the impact. The participants were students of first semester computer sciences at the Universitas Al Asyaiah Mandar inIndonesia and the sample size was 40. The results indicated that impact was effective in enhancing students skills and motivation..	Indonesia	Scopus
12	Chi D.T.P. (2022). Exploring Student Engagement on Library Facebook Pages: A Survey of Vietnamese Academic Libraries. Journal of Information Science Theory and Practice, vol. 10, no.2, pages 17-29	The study was conducted to examine the effectiveness of facebook in connecting students. A questionnaire was designed to collect the data from 1670 students in Vietnamese universities. The age group of the students was between18 and 22 years. The results found that the facebook pages of libraries did not receive good response and interaction. The students acceptance of libraries facebook pages was affected by the social media content and the needs of the students. Few students who have used libraries facebook pages were not very active..	Vietnam	Scopus
13	Konstantoulaki K.; Rizomyliotis I.; Cao Y.; Christodoulou I. (2022). Social media engagement and the determinants of behavioural intentions of university online programme selection: the moderating role of mindfulness. Corporate Communications, vol. 27, no.3, pages 457-469.	The study was conducted to explore the impact of social media engagement on the behavioural intention. The determinants that were included were attitude, subjective norm and perceived behavioural intention of Theory of Planned Behaviour. The conclusive research analysis was followed. The survey was conducted on 210 students from UK higher education. The results indicated that the attitude, subjective norms and perceived behavioural control was impacted by the social media.	United Kingdom	Scopus

14	Ajibade S.-S.M.; Zaidi A. (2023) Technological Acceptance Model for Social Media Networking in e-Learning in Higher Educational Institutes. International Journal of Information and Education Technology, vol. 13, no.2, pages 239-246.	The purpose of the study was to examine the use of social media in the schools for learning, contact, collaboration and participation among the students and teachers., The technology adoption model was used to assess using the determinants such as perceived usefulness, east of use and behavioral intention. The study was conducted in Nigerian schools and students and teachers participated in the survey. The intention to use social media was impacted by the usefulness, ease of use and utility.	Nigeria	Scopus
15	Abhineeth Sadhu & Yuvaraj Nath (2025) Investigating the Behavioral Intention of 12th Grade Students to Adopt E-Learning Platforms. 10th International Conference on Economic Growth and Sustainable Development: Emerging Trends – November 27-28, 2025, Mysore	The findings from the study was expected to provide insights into why some students use e-learning more and others have reluctance. It has guided the educators, policy makers and parents in designing the effective learning systems. The research has contributed significantly theoretically through the integration of UTAUT model.	India	Google Scholar

Bibliometric Analysis, Tools & Search Syntax

Rowley and Slack (2004) introduced the bibliometric analysis methodology. This methodology is endorsed by other academics who have produced bibliometric studies across multiple disciplines (Pinto et al., 2020; Mahadevan and Joshi, 2021a & 2021b). Bibliometric analysis focuses on the objective data, publications production over time, frequency of citations and the keywords prevalent. The interpretation of the results depend on the subjective assessments such as thematic analysis. Consequently, meticulously conducted bibliometric research might establish a foundation for the field's advancement in a more innovative and significant manner. This study allows researchers to gain a comprehensive understanding of the issue, identify knowledge gaps, generate fresh research ideas, and emulate the intended contributions.

"Biblioshiny" package and R program was used to perform the bibliometric analysis. R analytics is an open source programming language. Aria and Cuccurullo (2017) was responsible for this innovation and it has received lot of appreciation in this field. It is very important to know how to search the databases, and it is one of the methodological steps in bibliometric analysis to make sure the search is thorough. Choosing the right keywords is very important because it makes it possible to search a lot of literature on the chosen areas of interest all at once. We used two well-known databases, Scopus and WoS, to search the literature. The literature search covered the years 2017 to 2026, and the search query was done on March 19, 2026 (Table 3).

Table 3. Search Syntax

Database	Search Syntax
Scopus (https://www.scopus.com), WoS (https://www.webofscience.com)	TITLE ("digital marketing" OR "social media" OR "online platform*" OR "digital communication" OR "e-marketing") AND ("student engagement" OR "student experience" OR "student interaction" OR engagement) AND (TAM OR "technology acceptance model" OR "behavioral intention" OR "intention to use" OR acceptance OR adoption) AND (university* OR college* OR "higher education")

Analysis and Results

Bibliometric analysis of the topic Adoption of Digital Marketing by colleges for student engagement is presented in the following headings.

Main Information: The "Main Information" serves as the primary component of the bibliometric analysis since it offers details on trends, the quantity of documents, authors, relationships between documents in the research domain, authors of single-authored documents, international co-authorship, and more. Search was made between 2017 to 2026 and the results are presented in table 4, There were 254 documents processed from 195 distinct sources contributed by 1088 authors. 29 documents were authored by a single person. Co-authorship with foreign authors accounted for about 28.35% of the total. Publications have an annual growth rate of 8.59%.

Table 4. Main Information

Description	Results
Timespan	2017:2026
Sources (Journals, Books, etc)	195
Documents	254
Annual Growth Rate %	8.59
Document Average Age	3.27
Average citations per doc	12.65
References	32654
AUTHORS	
Authors	1088
Authors of single-authored docs	28
AUTHORS COLLABORATION	
Single-authored docs	29
Co-Authors per Doc	4.42
International co-authorships %	28.35

Wordcloud: This figure 2 represents key topics from a collection of research articles related to social media. The size of each word indicates how frequently it appears, with larger words showing more important or commonly discussed terms. The most prominent term, "social media," highlights that the main focus of these studies is on social media use. Other large words such as "students," "humans," "male," and "female" suggest that the research involves different groups of people, especially students and young adults. The presence of words like "education," "higher education," and "e-learning" indicates that many studies explore the role of social media in learning environments. Additionally, terms such as "questionnaire," "surveys," and "cross-sectional study" show that the data was collected using common research methods. Health-related terms like "mental health," "depression," and "psychology" suggest that the studies also examine the impact of social media on well-being. The inclusion of "COVID-19" and "coronavirus disease 2019" implies that some research was conducted during the pandemic. Overall, the word cloud shows that the research focuses on how social media affects students' education, behavior, and mental health, particularly in recent years.

Figure 2. Word Cloud

Countries Authored: This bar chart in figure 3 shows the number of research documents produced by authors from different countries. It focuses on the corresponding author's country, meaning the main author responsible for each paper.

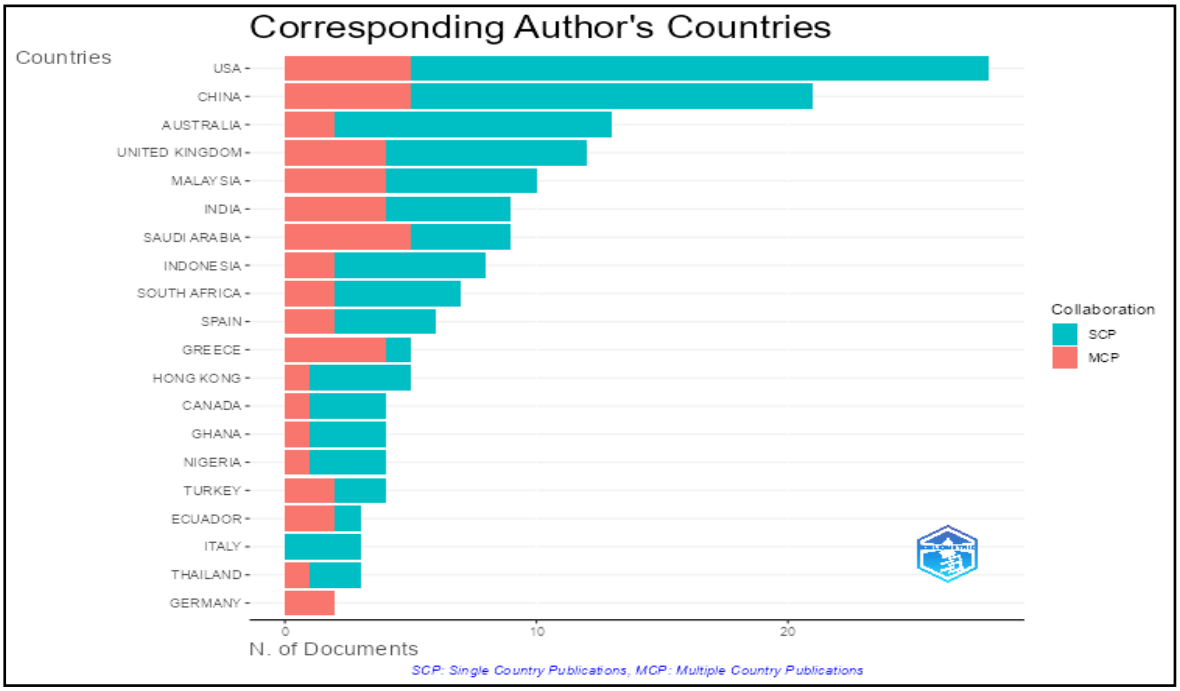


Figure 3. Corresponding Author Countries

The vertical axis depicts the list of the countries and the horizontal axis indicates the number of documents. Each bar is divided into two colors: teal (SCP), which stands for Single Country Publications, and red (MCP), which stands for Multiple Country Publications. SCP means the research was conducted within one country, while MCP indicates international collaboration between countries. The United States has the highest number of publications, followed by China and Australia. This suggests that these countries are leading in research output in this field. Many countries, such as the USA and China, also show a strong level of international collaboration, as seen by the red portions of the bars. Other countries like the United Kingdom, Malaysia, and India also contribute a moderate number of publications. Meanwhile, countries such as Ghana, Nigeria, and Ecuador have fewer publications. India has fewer publications than leading countries like the United States, China, Australia, and the United Kingdom, but it performs similarly to countries such as Malaysia and Saudi Arabia. This indicates that India is an active contributor, though not among the top producers. Overall, the chart highlights that research production is concentrated in a few leading countries, with a mix of both independent research and international collaboration.

Most Cited Countries: This figure 4 shows the "Most Cited Countries," meaning the total number of citations received by research papers from each country. The vertical axis indicates the list of countries and the horizontal axis shows the number of citations. Each circle represents a country, and its position indicates how many citations it has received.

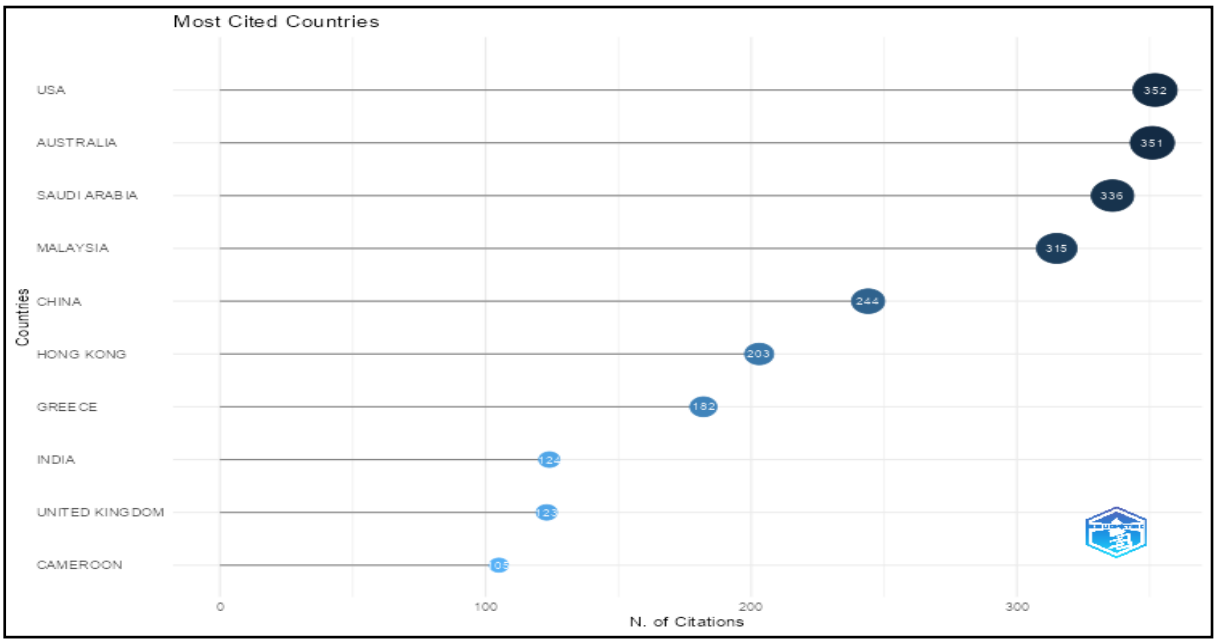


Figure 4. Most Cited Countries

The United States ranks first with the highest number of citations (352), followed closely by Australia (351). Other highly cited countries include Saudi Arabia (336) and Malaysia (315), showing strong research impact. India is positioned in the lower-middle range with around 124 citations. It has a similar citation count to the United Kingdom (123), indicating a moderate research impact compared to leading countries. However, India is behind countries like China (244) and Hong Kong (203), which have significantly higher citation counts. At the lower end, countries such as Cameroon have the fewest citations. Overall, the chart indicates that while India contributes to research, its global impact in terms of citations is moderate and lower than the top-performing countries.

Application of Technology Adoption Model

The Technology Acceptance Model (TAM) elucidates individual adoption of information systems. The Technology Acceptance Model (TAM) emphasizes that acceptance of technology is forecasted by the behavioural intentions of the users. These are influenced by the perceptions on the use of technology in the execution of their job and ease of use. The aim of Technology Acceptance Model was to elucidate the mechanisms for forecasting the behaviour and intention to use the technology. The primary aim of TAM was to educate practitioners on actions they could undertake before system implementation.

Multi-item measures were designed for variables perceived ease of use and perceived usefulness. These were tests and validated through several investigations based on the literature. The two constructs were hypothesised to be essential predictors of user acceptance, supported by prior research (e.g., Johnson & Payne, 1985; Payne, 1982; Robey, 1979). The research indicated that a person's choice to engage in an activity stems from evaluating the anticipated benefits against the exertion or expenses incurred in executing the behaviour (Johnson & Payne, 1985; Payne, 1982). The utilisation of the information system is contingent upon an assessment of the trade-off between its perceived utility and the perceived complexity of its use (Davis, 1989). The model was further verified by establishing substantial correlations among perceived usefulness, perceived simplicity of use, intention, and usage behaviour (Davis, 1989).

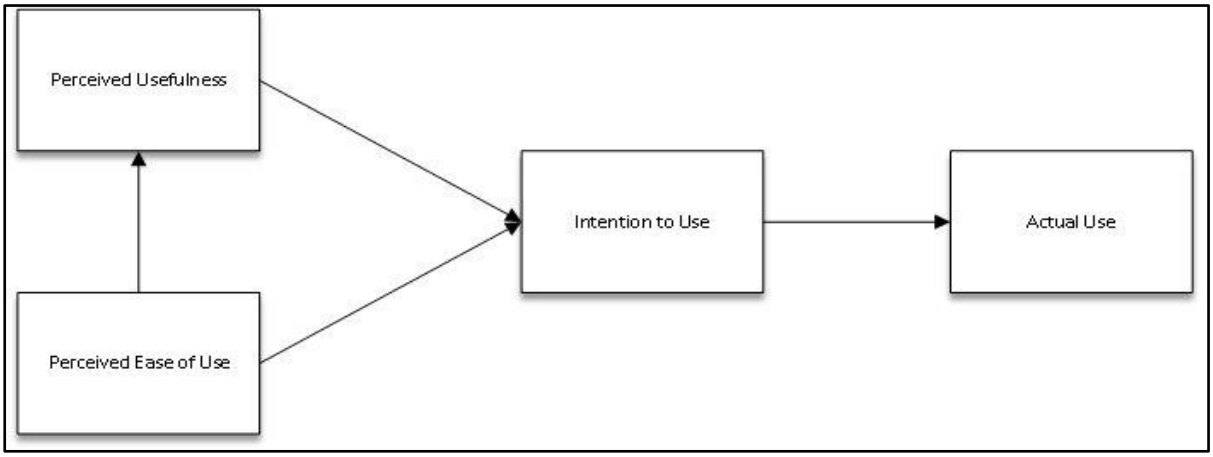


Figure 6. Technology Adoption Model

Extension to Technology Acceptance Model

In addition to the Perceived Usefulness and Perceived Ease of Use, two more factors Perceived Value and Trust are added to the model. The proposed model for conducting research is given in figure 7.

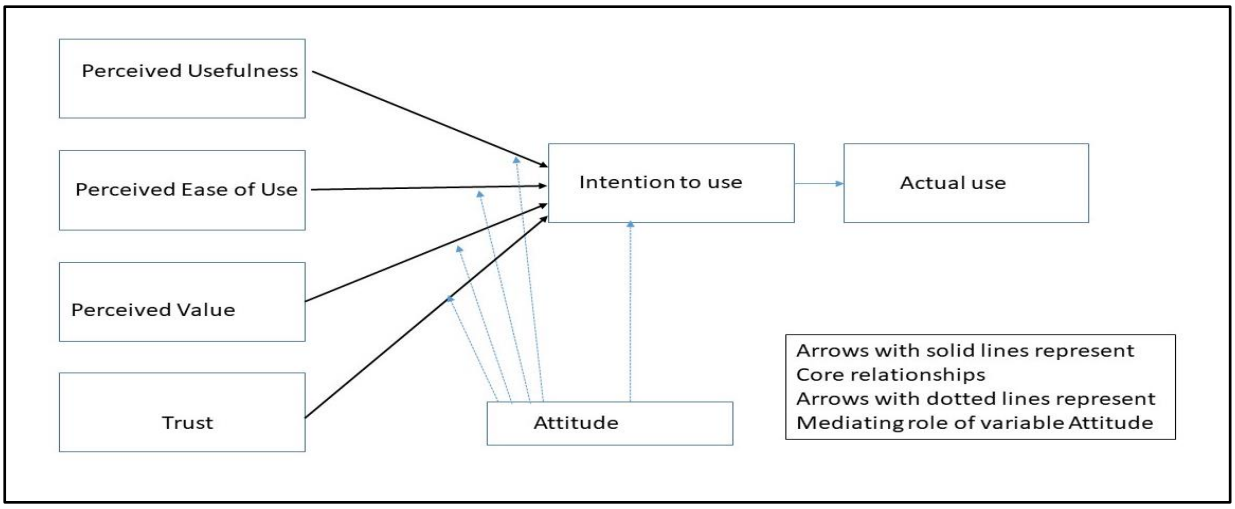


Figure 7. Proposed Model for Research Study

Perceived Usefulness is the extent to which a person can believe that usage of technology or a particular system will help improving their performance of work better. Fred Davies has identified perceived usefulness as key factor contributing to technology adoption. People develop a positive attitude when they feel that a system that they are using is found to be effective and useful. The perceived utility of a system is influenced by its features, their relevance to specific tasks, and the quality of the output it generates. This understanding is particularly important in decision-making, especially in business, where improving performance is a primary goal. Generally, the likelihood of adopting and continuing to use a technology is positively related to how useful the user thinks it is.

Perceived Ease of Use Refers to the extent a person feels that using any technology will be easy and effortless. If a system is easy to learn, understand, and operate, users are more likely to adopt it. It reduces the mental and physical effort required to use the technology. Higher perceived ease of use also positively influences perceived usefulness and overall user acceptance.

Perceived Value refers to the overall benefit a user believes they gain from using a product or technology compared to the cost or effort involved. It combines both functional benefits (like usefulness and performance) and emotional or social benefits. If users feel that the advantages outweigh the time, money, or effort spent, the perceived value is high. This perception strongly influences their decision to adopt and continue using the system. Higher perceived value leads to greater satisfaction and loyalty toward the technology.

Attitude refers to an individual's overall positive or negative feeling about using a particular technology. It reflects how a user evaluates the system based on their experience or expectations. Attitude is influenced mainly by *Perceived Usefulness* and *Perceived Ease of Use*. If a user believes the system is helpful and easy to use, they tend to develop a positive attitude toward it. A positive attitude increases the likelihood of accepting and using the technology.

Trust refers to confidence in the reliability, accuracy, transparency, and ethical use of technology for academic purpose. (Gefen et al., 2003).

Intention to Use (also called *Behavioral Intention*) refers to a person's willingness or plan to use a particular technology in the future. It reflects how likely a user is to adopt the technology based on their attitudes and beliefs. Intention to use is strongly influenced by *Perceived Usefulness* and *Attitude toward using the system*. When users have a positive attitude and believe the system is beneficial, their intention to use it increases. A higher intention to use usually leads to actual usage behavior.

Accept to Use refers to the actual adoption and use of a technology by an individual. It represents the final stage of the model, where the user not only intends to use the system but also starts using it in practice. Acceptance to use is influenced by *Behavioral Intention*, which is shaped by perceived usefulness, perceived ease of use, and attitude. When these factors are positive, users are more likely to accept and consistently use the technology. It reflects real user behavior rather than just intention.

3. Problem Statement (Identifying the GAP)

While digital marketing's importance in colleges is on the rise, existing research primarily focuses on general student populations, with a scarcity of region-specific analyses, particularly in Uttar Pradesh. Furthermore, the utilization of the Technology Acceptance Model (TAM) to investigate the adoption of digital marketing tools for engaging prospective students is still underexplored. Research also lacks a thorough investigation into the nuanced aspects of student engagement, including cognitive and emotional reactions, alongside the influence of trust and content credibility. This study seeks to fill these voids by analyzing digital marketing adoption through a TAM framework, specifically within the context of prospective student engagement at institutions located in the state of Uttar Pradesh.

4. Need for the Study

The higher education landscape in India has undergone a significant transformation in recent years, driven by increasing competition among institutions and the rapid growth of digital technologies. Higher education institutions are increasingly adopting digital marketing strategies to attract and engage prospective students. However, despite the widespread use of digital platforms such as social media, websites, and online advertising, there remains a lack of clarity regarding how effectively these tools influence prospective student engagement and decision-making.

Traditional marketing approaches are gradually being replaced by digital channels, yet many institutions struggle to design and implement strategies that resonate with digitally savvy students. Prospective students today rely heavily on online information sources, peer reviews, and interactive content before making enrolment decisions. This shift necessitates a deeper understanding of the factors that drive the acceptance and effectiveness of digital marketing efforts in the context student engagement in the colleges.

While prior studies have examined digital marketing and technology adoption in education, there is limited research that integrates the Technology Acceptance Model (TAM) to analyze how prospective students perceive and engage with digital marketing initiatives. TAM, with its core constructs of perceived usefulness and perceived ease of use, provides a robust theoretical framework to understand user acceptance of technology. However, its application in the domain of digital marketing for student engagement, particularly at the pre-admission stage, remains underexplored.

Furthermore, the state of Uttar Pradesh region presents a unique context characterized by a high concentration of educational institutions, diverse student demographics, and intense competition. Despite this, region-specific empirical studies focusing on digital marketing adoption and its impact on prospective student engagement are scarce. Additionally, existing research often emphasizes surface-level metrics such as reach and visibility, overlooking deeper dimensions of engagement such as cognitive involvement, emotional connection, and behavioral intention.

5. Relevance of Projected Findings

The present research study aims to find and bridge the gaps through the application of Technology Adoption Model (TAM) framework to identify the adoption of digital marketing techniques for the prospective student engagement in the colleges in Uttar Pradesh. It is expected that the findings from the research study to provide valuable insights to the educational institutions, marketers and policy makers for designing effective digital outreach strategies which will enhance the engagement in the fierce competitive market.

6. Research Objectives

Following objectives are proposed to be covered under the research study based on the gaps identified in the review of literature.

1. To analyze current scenario of Digital Marketing in the colleges of Uttar Pradesh (U.P.).
2. Determine the factors contributing to the adoption of digital marketing.
3. To identify the digital marketing tool that are mostly used by institutions.
4. To analyze and interpret the effect of Attitude as a moderating variable on the relationship of the determinants contributing the adoption of Digital marketing with behavioral intention and use behavior.
5. To analyze the barriers for the adoption of Digital Marketing in the Colleges of U.P.

7. Formulation of Hypothesis

Different opinions are observed in the literature pertaining to the adoption of digital marketing for student engagement.. The following hypotheses will be tested:

Perceived Usefulness: The degree to which students think digital technology improves their learning outcomes is known as perceived usefulness. This includes improving learning outcomes, feedback systems, instructional activities, assessment, and the engagement process. The concept of perceived usefulness serves as a fundamental element of the Technology Acceptance Model and has been extensively acknowledged as a crucial factor influencing technology acceptance (Davis, 1989). A number of studies have emphasized the beneficial influence of perceived usefulness on the intention to adopt educational technologies (Teo, 2011). Vinitpittayakul (2023) conducted research on the elements that influence the acceptance of technology in online learning and came to the conclusion that perceived utility is one of the most important characteristics that affects technology acceptance in this context. All of these findings were based on the findings of the aforementioned researchers. It is suggested that the following hypothesis be tested:

H_1: Perceived usefulness positively influences behavioural intention of colleges to adopt digital marketing for student engagement

Liao et al. [2022] in the study conducted, found that perceived usefulness has strongly predicted the perceived value of adopting e-learning systems, whereas Yu et al. [2017] show that perceived usefulness, mediated by attitude, was the most important factor impacting the adoption of media tablets. Other research has reported similar findings [Liang et al., 2021; Lau et al., 2019]. Therefore, following hypothesis is proposed for testing:

H_2: Perceived usefulness positively influences Attitude of colleges to adopt digital marketing for student engagement

Perceived Ease of Use: Another essential component of the TAM is the user's perception of how easy it is to use. The user's perception of the amount of effort necessary to use the technology is represented by this characteristic. Venkatesh and Davis (2000) and King *et. al.*, (2023) found that research repeatedly demonstrates that users' views towards technology and their intentions to utilize it are greatly influenced by the perceived ease of use of the technology. Vinitpittayakul (2023) conducted research on the elements that impact the adoption of technology in online learning and came to the conclusion that perceived ease of use is a crucial factor that affects the acceptance of technology in this field. Following hypothesis is proposed for testing:

H_3: Perceived ease of use positively influences Behavioural Intention of colleges to adopt digital marketing for student engagement

The idea of maximal value is the fundamental presumption in consumer decisions, and value encompasses both costs and benefits, claim Kim et al. [2007]. Perceived utility is one of the perceived benefits [Kim et al., 2017], and Davis [1989] asserts that perceived ease of use has a major impact on perceived value. Thus, the following hypothesis is for testing:

H_4: Perceived ease of use positively affects Attitude of colleges to adopt digital marketing for student engagement

Perceived Value: It has a beneficial impact on users' attitudes toward adopting technology, according to research on information systems and technology adoption. Rapp et al. [2021 assert that people's favourable attitude or intention to use a technology increase with their perception of its value. Research indicates that attitude is positively correlated with perceived values across a range of contexts. Users with higher perceived value had a more positive attitude toward utilizing the service, according to Kim et al.'s [2017] study on IoT adoption in smart homes. Similar results are reported by Hsiao and Chen [2017] on e-book subscription services and by Ashfaq et al. [2021] on the usage of smart speaker technology.

H_5: Perceived value positively affects behavioural intention of colleges towards using digital marketing for student engagement.

Consumer behavior study indicates that customers' intentions toward a product are greatly shaped by perceived value [Fatima et. al., 2021]. Perceived value is "the consumer's overall assessment of the utility of a product based on perceptions of what is received and what is given," according to Zeithaml [1988]. Perceived value is acknowledged as a key predictor of technology adoption and acceptability in information system research [Liang et. al., 2021; Sacchetti, 2023]. Recognizing the influence of value views on students' adoption of chatbots and drawing on earlier debates, we put up the following hypothesis:

H_6: Perceived value positively affects attitude of colleges for using digital marketing for student engagement.

Attitude: As for the attitude component, a number of research show that students' perceptions of technology are a key indicator of their acceptability and usage patterns [Al Darayseh 2023; Kelly et al., 2022; Chatterjee, 2020]. The current study sought to ascertain the factors that influence instructors' and students' acceptance or rejection of the use of chatbot technology in the classroom, drawing on the TAM. The following theory is put forth:

H_7: ***To analyze the mediating role of attitude in the relationship between determinants of digital marketing adoption and behavioural intention toward use***

The above hypotheses are suggested in line with the basic premise of the proposed study. However, as the study progresses, relevant hypotheses may be further added.

8. Research Methodology

This section presents the outline of the research methodology, study area, population, sampling and data collection and analysis approach.

Research Design: Research design is like a blue print for the researcher to help in the data collection and analysis of data. For the present study the research design that is being planned is the Exploratory and descriptive in nature. Hypothesis to meet the objectives of the research to test the relationships among the variables will be developed. The entire study will be done through both quantitative & qualititative approach. For Qualititative approach PI and FGD (focused group discussion) will be used. The purpose of using both provide a solid ground for identifying the key factors. Exploratory research design will be used as it will help us to collect more information about colleges attitude & perception towards adopting Digital Marketing for student engagement.

Survey location and Target respondents: Uttar Pradesh presents a unique context characterized by a high concentration of educational institutions, diverse student demographics, and intense competition. The research study will be conducted at the educational institutions. The proposed study will be undertaken at the institute level. The respondents will be the management/principals/HODs of the institution. The break-up of colleges in Uttar Pradesh state are given in table 3.

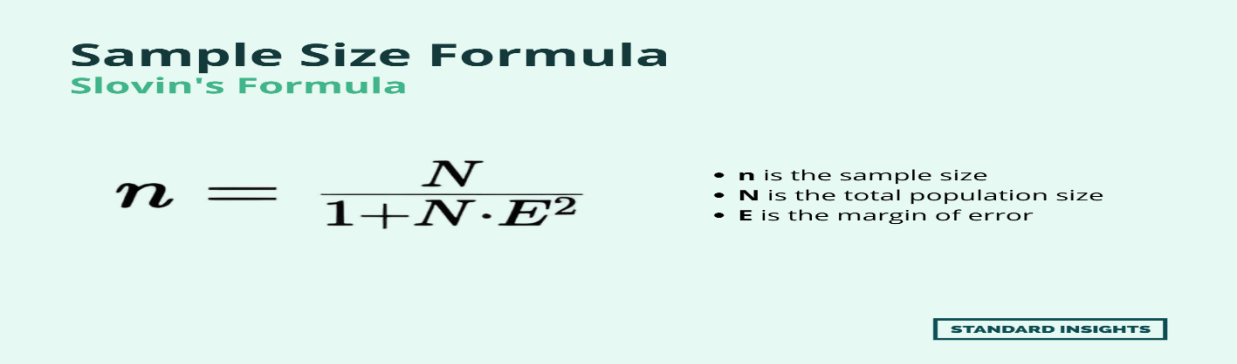
Table 3. Number of Colleges in Uttar Pradesh

Central Government	27
Local Body	168
Private Aided (Government Aided)	762
Private Un-Aided	7686
State Government	431
University	173
Grand Total	9247

Source: https://dashboard.aishe.gov.in/hedirectory/#/hedirectory/universityDetails/C/ALL

Sampling Procedure: Non-probabilistic judgement and convenient sampling will be used for the research study. This method is common across the social institutions relatively. Questionnaire meeting all the objectives of the study will be developed for data collection.

Sample Size: Uttar Pradesh state has a total of 9247 colleges of different categories. The sample size required for collection of data is being determined using the following formula:


Sample Size Formula
Slovin's Formula
$n = \frac{N}{1+N \cdot E^2}$
• n is the sample size
• N is the total population size
• E is the margin of error
STANDARD INSIGHTS

Slovin's formula is a simple method used to calculate the sample size (n) required for a survey, based on a known population size (N) and a desired margin of error (e)). It is best suited for estimating proportions within a 95% confidence level, generally for exploratory research or when population data is limited.

n = (9247)/(1+(9247*(0.5*0.5)))

n = 9247/(1+(9247*.0025)) = 9247/(1+24)

n = 9245/25

n = 369

The sample size required for the research study is approximately 369.

9. Data & Statistical Techniques for Analysis

Questionnaire/Instrument for Data Collection: A self-administered standardized questionnaire will be used for primary data collection as a survey instrument. The questionnaire for the survey will be adapted from well-established scales from the literature review. After conducting a pilot study, the questionnaire will be reviewed and fine-tuned before administering the same to the balance target respondents.

Analytical Tools & Framework for Analysis: Data will be subjected to analysis for normality. In the event of non-normality of the data, non-parametric tests will be applied for the data. The statistical tools of t-test, Factor analysis, Chi-square tests, correlation analysis etc., will be applied using SPSS Statistical Package, SPSS AMOS or Smart Plus modules for Structured Equation Modelling.

Structural Equation Modeling (SEM): For accurately identifying the causal relationship between the Entrepreneurial Orientation and the firm's performance, Structural Equation Modelling (SEM) will be used.

10. Contextual Relevance of the Study

This study holds substantial contextual importance due to the swift digital transition occurring in India's higher education sector. Contemporary prospective students predominantly depend on digital platforms, including social media, institutional websites, and online reviews, for information acquisition and decision-making concerning higher education. The fierce competition among the colleges and also the rising prevalence of the smart phones and internet, has forced the colleges to shift their focus of student engagement from conventional marketing methods to digital marketing strategies. This transition requires universities to implement efficient and focused digital marketing strategies to attract, engage, and convert prospective students. Uttar Pradesh serves as a pertinent context owing to its numerous higher educational institutions, varied student demographic, and vigorous competitive atmosphere. Notwithstanding the extensive implementation

11. Theoretical Relevance of the Study

The proposed study is expected to make a significant contribution towards advancement of technology adoption and the digital marketing literature through the application of TAM in a innovative way. The technology adoption models have been extensively implemented in understanding the adoption of technology in IT and e-learning etc. However, the application of Technology Adoption Model in the domain of digital marketing for student engagement has not been explored. The current research study addresses the gap with the adoption of the technology model using the constructs such as perceived usefulness, perceived value and trust in the TAM framework. With the inclusion of these constructs, the study enhances the power of TAM in understanding behavioural intention towards adoption of technology in digital marketing. Further, the research study also contributes by contextualizing the model in the education sector focussing on the student engagement.

A comprehensive theoretical model will be provided for the research study which bridges the gap between adoption of technology models and marketing practices in the sector of education. It will also become a foundation for future empirical research in other domains by validating the technology adoption model in Indian context.

12. Limitation of the Study

Despite its theoretical and practical contributions, the study is subject to certain limitations:

1. Geographical limitation: The research study is being proposed to be conducted at the colleges in Uttar Pradesh hence the geographical limitation exists. The results obtained from the research cannot be generalized as it is not conducted in the pan India level.

2. Respondent Bias: The research study is being planned on the colleges and the primary respondents are the stakeholders of the colleges namely management, principals and HODs. It may not fully reflect the perceptions and behavioural intentions.

3. Self-Reported Data Issues: Questionnaire will be sent to the colleges through google forms, hence data collected may be subjected to response bias in interpretation.

4. Scope for Further Research: The proposed research study is quantitative & qualititative in nature. Analytical and longitudinal approaches may be included in future studies to get deeper understanding in the adoption of digital marketing for student engagement.

13. Work Plan of the Research

Work Plan of the Research		
Activity	**Months**	**Duration In Months**
Course work	July 2025-March 2026	9
Defence of Thesis Proposal	Apr-26	1
Questionnaire development, validation, sampling design, pilot testing, and refinement of the questionnaire	May-Oct 2026	6
Data Collection, data cleaning, preparation	Nov 2026-March 2027	6
Data Analysis and Results	April - Sep-2027	6
Thesis Writing	Oct 2027 - March 2028	6
Pre-PhD seminar	Apr-28	1
Submission of the Thesis	May-June 2028	1
	Total Months	**36**

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